

CLAIMS

1. A method of authenticating a data processing terminal (140;115a) of a user (USERa;USERb) for granting the  
5 data processing terminal access to selected services provided by a data processing system (100,105), the user being provided with an authenticatable mobile communication terminal (150) adapted to be used in a mobile communication network (155), the method comprising:

10 performing a first, SIM-based authentication of the user's data processing terminal in the data processing system at an authentication data processing server, said performing the SIM-based authentication comprising operatively associating with the user's data processing  
15 terminal a first Subscriber Identity Module (SIMa) issued to the data processing terminal user;

having the user's mobile communication terminal authenticated in the mobile communication network; and

20 conditioning the authentication of the user's data processing terminal in the data processing system to a second authentication, said second authentication being based on identification information provided to the user at the mobile communication terminal through the mobile communication network.

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2. The method according to claim 1, in which said second authentication comprises:

generating a first password at the authentication data processing server;

30 sending the first password to the mobile communication

terminal over the mobile communication network; and  
5        checking a correspondence between the first password  
and a second password, depending on the first password,  
entered at the data processing terminal and provided to the  
authentication data processing server through the data  
processing system.

10        3. The method according to claim 2, comprising having  
the user entering the second password through the data  
processing terminal.

15        4. The method according to claim 2, in which the  
second password is entered automatically upon receipt of the  
first password at the user's mobile communication terminal.

20        5. The method according to claim 2, 3 or 4, in which  
said first password is usable a limited number of times,  
particularly one time only.

25        6. The method according to any one of claims 1 to 5,  
comprising issuing to the user a second Subscriber Identity  
Module (**SIMb**), adapted to be used in the user's mobile  
communication terminal for authentication thereof in the  
mobile communication network.

30        7. The method according to claim 6, in which the  
second Subscriber Identity Module has a fixed, one-to-one  
relationship with the first Subscriber Identity Module.

35        8. The method according to claim 6, in which the first

Subscriber Identity Module is associated with an identifier of the second Subscriber Identity Module, particularly a mobile communication terminal number.

5 9. The method according to any one of the preceding claims, in which said identification information is sent to the user's mobile communication terminal by way of a Short Message Service (SMS) message.

10 10. The method according to any one of the preceding claims, in which said first Subscriber Identity Module is of a type adopted in mobile communication networks for authenticating mobile communication terminals.

15 11. The method according to claim 10, in which said performing the first, SIM-based authentication of the data processing terminal comprises having the first Subscriber Identity Module authenticated by an authentication server (200) of the data processing system, the authentication server acting substantially as an authentication center (215) of a mobile communication network operator (160).

20 12. A method by which a data processing terminal (140) in a data processing system is authenticated in order to be granted access to selected services provided by the data processing system (100,105), the method comprising:

25 interacting (417, 419, 429, 431, 433) with a first user's Subscriber Identity Module (SIMa) operatively associated with the data processing terminal, and with an authentication data processing server in the data processing

system, for performing a SIM-based authentication of the user's data processing terminal;

5 acquiring (455) personal identification information provided to the user at a user's mobile communication terminal authenticated through a mobile communication network (155), and

sending (457) said personal identification information to the authentication data processing server for completing the authentication of the data processing terminal.

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13. The method of claim 12, in which the first Subscriber Identity Module is of a type adopted in mobile communication networks for authenticating mobile communication terminals.

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14. The method of claim 13, further comprising: retrieving (417) SIM identification data from the first Subscriber Identity Module (SIMa);

20 the authentication server, the authentication server acting substantially as an authentication center (215) of a mobile communication network operator (160);

25 receiving from the authentication server SIM authentication data corresponding to the SIM identification data, and passing the SIM identification data to the first Subscriber Identity Module; and

communicating to the authentication server a response generated by the first Subscriber Identity Module.

30 15. A computer program directly loadable into a

working memory of a data processing terminal for performing, when executed, the method according to any one of claims 12 to 14.

5        16. A method by which an authentication data processing server (165) authenticates a user's data processing terminal (140) in a data processing system (100) in order to grant the data processing terminal access to selected services provided by the data processing system 10 (100,105), the method comprising:

receiving (413) a request of authentication of the data processing terminal, the data processing terminal having operatively associated therewith a first Subscriber Identity Module (**SIMa**);

15        performing a SIM-based authentication of the data processing terminal based on data associated with the first Subscriber Identity Module;

20        providing (447,449,451) the user with first personal identification information by exploiting a user's mobile communication terminal (150) authenticated in a mobile communication network (155), and

25        conditioning (459,461,463) the authentication of the user's data processing terminal to a prescribed correspondence between the first personal identification information provided to the user and second personal identification information received from the user's data processing terminal in reply to the provision of the first personal identification information.

30        17. The method according to claim 16, in which the

first Subscriber Identity Module is of a type adopted in mobile communication networks for authenticating mobile communication terminals, the authentication data processing server acting (415, 421, 427, 435, 437, 439) substantially as an 5 authentication center (215) of a mobile communication network operator (160).

18. The method according to claim 17, further comprising:

10 generating at the authentication data processing server a first password and sending the first password over the mobile communication network to the user's mobile communication terminal; and

15 conditioning the authentication of the data processing terminal in the data processing system to a prescribed correspondence between the first password and a second password, depending on the first password, entered at the data processing terminal and provided to the authentication data processing server through the data processing system.

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19. A computer program directly loadable into a working memory of an authentication data processing system (165) for performing, when executed, the method according to any one of claims 16 to 18.

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20. A computer program comprising the computer programs of claims 15 and 19.

30 21. A computer program product comprising a computer readable medium on which the computer program of any one of

claims 15, 19 and 20 is stored.

22. In a data processing system, a system for authenticating a data processing terminal (140;115a) of a 5 user (USERa;USERb) so as to grant the data processing terminal access to selected services provided by the data processing system (105), the user having an authenticatable mobile communication terminal (150) adapted to be used in a mobile communication network (155), the system comprising:

10 a first Subscriber Identity Module (SIMa) operatively associatable (145) with the data processing terminal; and an authentication data processing server (165) adapted (200,210,215) to carry out a first authentication step based on the first Subscriber Identity Module;

15 the authentication data processing server being further adapted (230-245) to carry out a second authentication process based on identification-information provided to the user at the mobile communication terminal through the mobile communication network.

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23. The system according to claim 22, in which the first Subscriber Identity Module is of a type adopted in mobile communication networks for authenticating mobile communication terminals,

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24. The system according to claim 23, comprising a second Subscriber Identity Module (SIMb), to be used in the mobile communication terminal for authenticating the mobile communication terminal in a mobile communication network 30 (155).

25. The system according to claim 24, in which the second Subscriber Identity Module is in a fixed, one-to-one relationship with the first Subscriber Identity Module.

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26. The system according to claim 24, in which the second Subscriber Identity Module is associated with an identifier of the second Subscriber Identity Module, particularly a mobile communication terminal number.

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27. The system of any one of claims 22 to 26, in which said first Subscriber Identity Module is associated with a device (145) connectable to the computer through a computer peripheral connection port.

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28. The system of any one of claims 22 to 27, in which said mobile communication network is one among a GSM, a GPRS, a UMTS network.

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29. An authentication kit for authenticating a user's data processing terminal (140,115a) in a data processing system (100) in order to grant the data processing terminal access to selected services provided by the data processing system (100,105), the kit comprising:

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a first Subscriber Identity Module (SIMa);  
a computer peripheral device (145) having associated therewith the first Subscriber Identity Module and operatively associatable with the user's data processing terminal;

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a second Subscriber Identity Module (SIMb) operatively

associatable to a user's mobile communication terminal (150) for allowing connection thereof to a mobile communication network (155).

5 30. The authentication kit according to claim 29, in which the first Subscriber Identity Module is of a type adopted in mobile communication networks for authenticating mobile communication terminals.

10 ~~31~~ 32. The authentication kit according to claim 29 or 30, further comprising the computer program product of claim 21.